The evidence base for the treatment of dependent personality disorder (DPD) is sparse and there are few credible evaluations of the effectiveness of integrative psychotherapies. This study therefore employed an A/B with extended follow-up single case design with a female patient meeting diagnostic criteria for HPD treated with an integrative psychotherapy. The patient was treated with 24 sessions of cognitive analytic therapy (CAT) with six-month follow-up and fidelity to the treatment model was found to be sufficient and satisfactory. There was a significant effect of phase of study in the time series of the primary intensively measured ideographic measure of reassurance-seeking, after controlling for autocorrelation in the time series. On the primary nomothetic measure (i.e. Interpersonal Dependency Inventory), there was a reliable increase in self-confidence on assessment-termination comparisons. Confidence in the reliability of the ideographic results is limited by evidence of improvements occurring during the baseline phase. The methodological limitations and clinical/theoretical implications are discussed for the use of CAT with patients with strong dependent traits or DPD.

Excessive interpersonal dependency is a personality feature underpinned by two orthogonal factors (a) functional dependency and (b) emotional dependency (McClintock, McCarrick, Anderson, Himawan & Hirschfield, 2017). Highly functional dependent patients view themselves as incompetent and are characterised by marked social anxiety, passivity and poor self-confidence and so relate to others as key sources of agentic support and instructional guidance (Morgan & Clark, 2010; McClintock, et al., 2017). Highly emotional dependent patients view themselves as helpless and so crave ongoing emotional support and reassurance from others and are characterised by a pathological attachment to a significant figure, separation anxiety and insecurity (Arntz, 2005; McClintock, et al., 2017). Functional dependency appears to account for more distress and difficulties than does emotional dependency (Schulte, Mongrain & Flora, 2008).

The DSM-5 diagnostic criteria take account of both functional and emotional dependency to label dependent personality disorder (DPD) as a long-standing, pervasive and excessive need to be taken care of (that emerges in early adulthood and is evident in the adult regardless of context), that leads to submissive/clinging behaviour and fears of separation (APA, 2013). Dependency creates associated problems with making decisions, taking the initiative, disagreeing with others, starting projects, low self-confidence, fear of abandonment, pessimism and self-doubt and has a significant impact on everyday functioning (APA, 2013). McClintock et al., (2017) speculated that the low prevalence rate of DPD (i.e. 1%; APA, 2013) was due to rarity of patients presenting with comorbid chronic functional and emotional dependency. Functional and emotionally dependent traits are often then unfortunately transferred and mirrored in the relationships formed with psychotherapists, potentially risking lengthy and ineffective interventions, in which the patient does not learn appropriate independence and self-confidence (Beck et al., 1990). Psychotherapists are likely to attempt to treat female patients with DPD, as women are more likely than males to receive a DPD diagnosis (Bornstein, 2007).

Increasing the patient’s confidence and sense of appropriate independence is seen as the core purpose of any psychotherapeutic intervention with HPD (Versaevel, 2012) and a wide variety of theoretical approaches have been used during individual therapy. In a variety of N=1 and controlled and uncontrolled group studies, then short-term dynamic psychotherapy (Abbass, Sheldon, Gyra, & Kalpin, 2008; Hellerstein et al., 1998; Svartberg, Stiles & Seltzer, 2005), supportive-expressive psychotherapy and psychodynamic therapy (Vinnars, Barber, Norén, Gallop & Weinryb, 2005), brief supportive expressive therapy (Hellerstein et al., 1998), cognitive therapy (Nelson-Gray et al., 1996; Svartberg et al., 2005), cognitive behaviour therpay (Abramovich, 2006) and logotherapy (Rogina & Quilitch, 2006) have all been found to lead to improvements in DPD (or associated) symptomology. There is insufficient evidence to currently recommend a single psychotherapy as the treatment of choice.

Whilst CAT has been shown to be effective when treating personality disorders, its evidence base tends to be based on the treatment of borderline personality disorder (Bateman, Ryle, Fonagy & Kerr, 2007; Chanen et al., 2008; Kellett, Bennett, Ryle & Thake, 2011). As the current study is the first to attempt to deliver and evaluate CAT for DPD, the rationale for using CAT will now be presented. CAT uses a time-limited, collaborative and relational therapeutic approach to facilitating change (Ryle et al. 2014), whose theory and clinical procedures and practice with personality disorders have been recently spelt out (Ryle & Kellett, 2018). Theoretically, CAT integrates personal construct and object relations theory (Ryle, 1985), to propose that mental representations of the self and others are founded in (and then maintained) by developmental early interactions with care providers and other significant figures (Ryle & Kerr, 2002). CAT has three theoretical foundations; *reciprocal roles, target problem procedures* and the *multiple self-states model* (MSSM). Internalized early object relations are termed ‘*reciprocal roles’* and influence the manner in which a DPD patient might predict, establish, experience, maintain and respond to relationships, including the therapeutic relationship. Reciprocal roles are the analytic aspect of the CAT model (Ryle & Kellett, 2018) and range from self-to-self (i.e. the relationship the DPD patient has with themselves, to formulate low self-confidence), self-to-other (i.e. how the DPD patient relates to others, to formulate the reassurance-seeking) and other-to-self (i.e. to formulate what the DPD patient elicits from others and also how they experience others, including the psychotherapist). CAT would conceptualize the relational dynamics of DPD as a consequence of parental over-caring, leading to the internalization and then acting out of pathological reciprocal roles, meaning that appropriate individuation is postponed or delayed (Head, Baker & Williamson, 1991).

In CAT, *target problem procedures* (*TPPs;* Ryle & Kerr, 2002)are the cognitive component of CAT (Ryle & Kellett, 2018) and in the current context would be labelled as dependent traps (i.e. vicious circles that recreate the sense of being helpless and incompetent), snags (i.e. self-sabotage of appropriate independence) and dilemmas (i.e. either/or dependent dilemmas). TPPs are therefore used to summarise the procedural sequences that explain the manner in which the DPD patient currently thinks, feels and behaves, and in so doing highlights the present day relational consequences of dependent actions. The procedural sequence object relations model (PSORM) highlights that dependent procedures would be the product of reciprocal role activation (Ryle, 1991). During CAT, both narrative and sequential diagrammatic reformulations enable better patient recognition of dependent roles and procedures in relationships (Ryle & Kellett, 2018) and are used to analyse and navigate enactments of reciprocal roles in the therapeutic relationship (Bennett & Parry, 2004).

In the current study the multiple self-states model (MSSM; Ryle 1997) was used to account for the identity disturbance, rapid switching between states and relational consequences of dependency (Pollock et al. 2001). The MSSM is captured in the sequential diagrammatic formulation (SDR), through mapping distinct and sharply differentiated self-states, that are maintained through ongoing dissociation (Ryle, 2007). An important aspect of the CAT model with DPD is that it is *time-limited*, in that whilst dependency dynamics will be worked with during treatment, the time-limited contract would enable an ending to be created and the abandonment fears of the patient acknowledged and worked with (Ryle & Kellett, 2018). CAT is seen as a therapy that recognises the emotional significance of endings (Ryle et al. 2014) and has a specific and novel technique of the psychotherapist and client writing ‘goodbye letters’ for the final session to facilitate a relationally and emotionally informed ending.

The present study used a quasi-experimental single-case design (Barlow & Hersen, 1984; Hersen, 1990) to evaluate outcome. This method is highly recommended for evaluating the effectiveness of interventions for disorders with a thin evidence base (Turpin, 2001) or where researchers might struggle to generate sufficiently powered group studies (Kazdin, 1978; Hersen, 1990). Such studies have much greater internal validity than qualitative case studies and have good external validity due to being conducted during routine clinical practice (Kazdin, 1978). The hypotheses for the current study was there would be significant baseline-treatment reductions to idiographic dependent trait measures that would be maintained over the follow-up period, and that these changes would be reflected in reliable and clinically significant reductions to dependency on pre-post nomothetic outcomes that are maintained over time.

# Method

# Design and setting

# The study is reported according to the single-case reporting guidelines (SCRIBE) statement (Tate et al. 2016). The present study utilises an A/B design with an extended follow-up; this is termed a phase change without reversal design (Shadish & Sullivan, 2011) and is the most common and pragmatic single case method used to evaluate outcomes in routine clinical practice (Hersen, 1990). The baseline phase (A) consisted of 28 daily ideographic measurements that spanned 4-weeks and three assessment sessions. The treatment phase (B) consisted of 210 daily measurements spanning 30-weeks and twenty-one treatment sessions. The follow-up phase consisting of 190 daily measurements, which spanned twenty-seven weeks, with four follow-ups spread over this period. The study therefore generated a 435 continuous day times series, with three phases (baseline, treatment and follow-up). The treatment (‘B’) phase was initiated by discussion (at session 4) of a narrative reformulation. This is consistent with a raft of other CAT SCED research (e.g. Kellett, 2007). Nomothetic outcome measures were completed at assessment, termination and follow-up. The study was conducted in a community mental health team (Secondary Care) of a National Health Service (NHS) mental health Trust. The participant gave informed consent for the collection and analysis of the outcome data and was registered as a service evaluation within the clinical governance structure of the Trust. No procedural changes occurred during the course of the investigation after the start of the study. The CAT was delivered by a male Consultant Clinical Psychologist who was qualified and accredited with the Association of Cognitive Analytic Therapists (ACAT) and in receipt of weekly CAT clinical supervision.

# Participant

The female participant (aged 29) was referred by a Consultant Psychiatrist for assessment and intervention, due to non-responsiveness to anti-depressant medication and a counselling intervention in Primary Care and some confusion over the diagnosis.  The participant had been previously prescribed anti-depressants in Primary Care to little effect. During a screening appointment, the SCID-II (Spitzer, Robert, Gibbon & Williams, 1997) was administered and the participant met diagnostic criteria for DPD and a comorbid major depressive episode.  The participant described a general pattern across her childhood and adult relationship of a chronic, pervasive and excessive need to be taken care of by significant others, due to excessively low levels of self-confidence. She described lacking a core sense of identity. The participant had been brought up with her parents and recalled that her mother in particular had been very loving towards her and tried to anticipate and respond to her every emotional need. She did recall that she struggled at various transition points in her childhood and adult life, such as the transition to secondary school or University. The participant reported feeling less anxious when others made her decisions for her and that she looked to others for directions and decisions. She was living with her parents at the time of the study, after some failed attempts with living alone, or in relationships.  The patient was unemployed, but had previously worked in a variety of administrative posts. The participant had been to University, but had eventually dropped out due to becoming depressed and struggling living away from home.

 The participant stated that she experienced chronic and marked anxiety on a daily basis, which prompted the behaviours of reassurance seeking, clinging and generally submissive behaviour towards others.  The participant noted that all her relationships tended to be long-term, as she found it difficult to appropriately end relationships.  She stated that her recent relationship had been ended by her partner due to her excessive clinginess and constant pestering of him to decide the direction of each day and make decisions about everyday activities.  The participant stated that she froze in the face of any decisions and tended to panic and then look for someone who she perceived as more capable than herself. She described that should she be forced into making a decision, she would excessively procrastinate and miss the opportunity, or try to get advice from often multiple sources and then lose a sense of her overall direction.  She described a complex relationship particularly with her mother who was the person who tended to take responsibility for most major areas of her life - she stated that her mother would help her decide what to do, and who to do it with, and for how long, for example.  The participant described marked difficulties with assertiveness and a phobic-like avoidance of any interpersonal conflict.  She described that she hated arguing with people and felt shell-shocked should she fall into any conflict with others.

The participant’s day-to-day existence was one marked by anxiety and depression.  She stated that she was very self-critical and found it very difficult to self-initiate any actions or plans and was prone to worrying and self-doubt.  The participant reported the presence of severe and distressing panic attacks; the triggers for these attacks were periods of isolation or when faced with making a decision, and was marked by the desperate search for reassurance from others that she was not entering a 'breakdown state.' She stated that she hated her own company and this would be a cue for excessive rumination on past failures and worries about the direction of her life. The participant described that because she did not trust her own opinion, she adopted the 'better safe than sorry' approach of seeking out someone who would made the decision for her.  She found it exceptionally difficult to give examples of projects or activities that illustrated independence of thought and action, due to high and chronic levels of self-doubt.  The participant noted that she always tended to be able to get people to act or decide for her, but could not detail what she did that enabled this to happen.

## Treatment

CAT is a time-limited psychotherapy delivered in 8, 16 or 24 session contracts according to the severity of the presenting problem, with the current case being treated with 24 sessions due to the presence of PD (Ryle & Kerr, 2002). Sessions were weekly, lasted for 50-minutes and every session was attended. The assessment and treatment methods of CAT for PD have been clearly established and delineated (Ryle & Kellett, 2018) and have a three-phase *reformulation, recognition* and *revision* structure (Ryle & Kellett, 2018). Procedural fidelity to the CAT model was assessed using the competence in cognitive analytic therapy measure (CCAT; Bennett & Parry, 2004). Three sessions were recorded and analysed by an independent CAT therapist. CCAT scores need to be >20 to represent competent CAT and the sessions were scored 28, 32, 26 respectively, indicating that the treatment was CAT and it was being competently delivered.

The CAT delivered consisted of three stages consistent with the clinical model (Ryle & Kellett, 2018) of working with PD; (a) *reformulation,* this consisted of three sessions of assessment enabling a narrative reformulation describing the target problems of the participant (dependency and low mood), the developmental origins of the dependency (an enmeshed state with the mother), how the dependency and depression were maintained in the present day (i.e. target problem procedures) and hypothesising about the manner in which the patient might experience the help offered by the therapist (i.e. they would want the therapist to make all the decisions and feel abandoned at the end of treatment), (b) *recognition,* this aspect of the work was marked by methods to enhance self-awareness of problematic states/roles/procedures, via production of a sequential diagrammatic reformulation (SDR) and associated self-monitoring in and out of sessions and (c) *revision* focused on application of change methods (‘exits’ in the language of CAT) which were bespoke to the participant, their individual reformulation and their zone of proximal development (ZPD). In keeping with CAT practice, changes were visually labelled as ‘exits’ on SDRs (Ryle & Kerr, 2002).

The SDR was based upon the MSSM, in order to visually display an enmeshed/dependent state (i.e. containing an over-caring to smothered reciprocal role), a depressed state (i.e. containing a criticising to humiliated reciprocal role), a breakdown state (i.e. containing feelings of humiliation and shame), and an abandoned state (i.e. containing an abandoning to alone/abandoned reciprocal role). The DPD was therefore conceptualized as a target problem that consisted of a range of four distinct dysfunctional states, supported by structural dissociation between identified states (Pollock et al. 2001). Procedural sequences on the SDR therefore labelled the manner in which the participant state-shifted. CAT therapists work relationally within the patient’s ZPD (Vygotsky, 1978) to scaffold therapeutic change, by providing a non-collusive, challenging but supportive therapeutic relationship that analysed enactments and actively repaired ruptures (Ryle & Kellett, 2018). The change methods used in the current case can be summarised as: (1) analysis of reciprocal role enactments in the therapeutic relationship (i.e. noticing when the participant invited the therapist into an expert position, and one in which the therapist would make the participant’s decisions for them or provide them with excessive reassurance), (2) engaging in alliance rupture-repair sequences (i.e. when the participant felt criticised by the therapist and would withdraw within sessions or excessive submit), (3) exposure to a hierarchy of adult decision-making, (4) exposure to a hierarchy of independent activity outside the relationship with the mother, (5) assertiveness training, (6) attention focus training from other to self and (6) detailed endings work.

In the final session of CAT, both patient and participant produced and shared ‘goodbye letters.’ The ending was worked towards and acknowledged throughout the therapy. This was an important aspect of the case because of abandoned state and the risk that the participant would simply transfer the dependency onto another source of help and support. The function of these letters was to reflect on the ending of the therapy and what this means to the patient, name the dominant relational patterns that occurred within the therapeutic relationship, name abandonment feelings, mark progress, identify relapse prevention strategies, achievement of goals and to highlight the ongoing challenges the patient faces (Ryle and Kellett, 2018). The goodbye letter was an attempt to help the client internalise the changes made from the CAT, through a formal statement of what had been achieved, and also what might sabotage change (i.e. a dependent snag) over the follow-up period. The goodbye letter from the therapist therefore emphasised the utility of appropriate independence, autonomy and individuation.

## Ideographic measures

## Six ideographic measures were designed for daily administration at the first session and then completed throughout all subsequent contact with the participant. Each measure was scored on a Likert scale ranging from 0 (not at all) to 9 (all the time). Measure one; “*I have sought reassurance from others today*.” Measure two; “*I have avoided making decisions today*.” Measure three “*I have felt numb today*.” Measure four; “*I have been able to think clearly today*.” Measure five; “*I have felt depressed today*.” Measure six; “*I have felt anxious today*.” The primary nomothetic outcome measure was the need for reassurance measure due to the close fit with DSM-5 (APA, 2013) DPD diagnostic criteria.

## Nomothetic Measures

*Interpersonal Dependency Inventory* (IDI; Hirshfeld, Klerman, Gough, Barrett, Korchin & Chodoff, 1977)*.* The IDI is a 48 item measure of interpersonal dependency and has three factor-analysed subscales of emotional reliance on others, social self-confidence and assertion of autonomy. The IDI has acceptable stability (Bornstein, 1997; Bornstein, Rossner & Hill, 1994), is internally consistent (Hirshfeld et al., 1977; Richman & Flaherty, 1987) and has acceptable construct validity (Bornstein, 1994). Given the presenting problem of the participant, the IDI was the primary nomothetic outcome measure for the study. *Beck Depression Inventory-II* (BDI-II; Beck, Steer & Brown, 1995*).* The BDI-II is a 21-item valid and reliable measure of the intensity of depressive symptoms (Beck, Steer, Ball & Ranieri, 1996). BDI-II scores are coded as follows: 0-13 (minimal depression), 14-19 (mild depression), 20-28 (moderate depression) and 29-63 (severe depression). *Brief Symptom Inventory* (BSI; Derogatis, 1987).The BSI (53 items) is a valid and reliable measure psychological distress (Derogatis, 1993) and breaks down into three subscales, with the global severity index (GSI) the most commonly reported. A raw score greater than .78 on the BSI-GSI relates to the patient reaching ‘caseness.’ *Inventory of Interpersonal Problems-32* (IIP-32; Barkham, Hardy & Startup, 1996).The IIP-32 is a reliable (Barkham et al., 1996) and valid (Hughes & Barkham, 2005) measure of interpersonal problems and is the short version of the Inventory of Interpersonal Problems-126.

# Analysis strategy

A combination of visual and statistical methods was applied to the ideographic dependency measures. In order to control for autocorrelation in the time series ideographic data, lags were created for each ideographic measure to allow for each of the observations to be treated as independent and to enable subsequent parametric analysis of study phases (Chatfield, 2003). Figure 1 depicts the partial autocorrelation functions to confirm that first order lags were appropriate to be applied for each ideographic measure (Huitema & McKean, 1991). The first-order lag was used as a covariate in the subsequent ANCOVA that tested for any differences between the phases of the study (Kellett &Totterdell, 2008). Although the emotionally numb and depression measures violated the assumption of homogeneity of variance, due to the robustness of ANOVA/ANCOVA (Schmider, Ziegler, Danay, Beyer & Bühner, 2010) these analyses could still be performed on all ideographic measures. The ANCOVA had a single factor for study phase, which had three levels (assessment, treatment and follow-up phases) and post-hoc pairwise comparisons then identified during which phases significant differences occurred. A Bonferroni correction was applied to control the familywise error rate and reduce the likelihood of type 1 errors. Effect sizes for the ANCOVAs were calculated using partial η2 and interpreted as 0.01 = small effect, 0.06 = medium effect and 0.14 = large effect. Graphs were produced for each ideographic measure, depicting daily levels of the patient’s ratings to enable the shape of therapeutic change to be summarised across study phases. Trend lines were fitted to ideographic outcome graphs to summarize the direction of change within each phase. Nomothetic outcomes were evaluated regarding the degree and clinical significance of change. The degree of change was assessed with the reliable change index (RCI, Jacobson & Truax, 1991). The IDI lacked sufficient full- scale psychometric information to perform an RCI, but this was possible on the three sub-scales. The RCI tests for the degree of change required for change to be considered reliable, rather than that expected to occur by chance. Clinically significant change (CSC, Jacobson & Truax, 1991) occurs when outcomes shift in classification from ‘caseness’ to ‘non-caseness.’ Simultaneous reliable and clinically significant change is a credible index of *recovery* in routine practice (Barkham, Stiles, Connell & Mellor-Clark, 2012).

# Results

The results are presented in two sections which present the ideographic outcomes first and the nomothetic outcomes second. Figures 2-7 depict time-series plots and trend lines for each ideographic measure subdivided by phase of study. Across all the ideographic measures there was evidence of improvements occurring during the baseline (i.e. trend lines show patterns of improvement during baseline containing the three assessment sessions leading to the narrative reformulation). Much of the change that occurred in the ideographic measures was observed to have occurred during the follow-up phase. No adverse events were recorded.

Table 1 provides a summary table of the ideographic measures. On the primary ideographic outcome measure, there was a significant effect of the phase for daily levels of reassurance seeking, but with a small effect size (*F* (2, 423) = 12.18, *p* < .001, partial η2 = .05). There was a significant reduction in reassurance seeking from baseline to treatment and again from the treatment to follow-up. There was a significant effect of the phase of therapy on avoidance of day-to-day decision making, with a large effect size (*F* (2, 423) = 19.04, *p* < .001, partial η2 = .83). There was no significant reduction in avoidance of decision making from baseline to treatment, but significant reduction from treatment to follow-up. There was a significant effect of the phase of study on emotional numbness, with a small effect size (*F* (2, 423) = 9.91, *p* < .001, partial η2 = .05), with significant reduction in numbness from baseline to treatment and from treatment to follow-up. There was a significant effect of phase of study on cognitive clarity with a small effect size (*F* (2, 423) = 12.11, *p* < .001, partial η2 = .05); there was no change from baseline to treatment, but there was a significant increase in clarity on the treatment to follow-up phase comparison. There was a significant effect of phase of study on day-to-day depression with a medium effect size (*F* (2, 423) = 12.26, *p* < .001, partial η2 = .06) and day-to-day anxiety with a small effect size (*F* (2, 423) = 5.20, *p* = .006, partial η2 = .02). Neither depression nor anxiety improved on baseline to treatment comparisons. There was a significant difference between treatment and follow-up for depression, but not on daily anxiety.

A summary table of the nomothetic outcomes is presented in Table 2. On the primary nomothetic outcome measure (IDI), there was no reliable change in emotional reliance on others or the ability to assert autonomy on the assessment to termination comparisons and also on the termination to follow-up comparisons. There was a reliable improvement in the self-confidence IDI subscale on the assessment to termination comparison (RCI = 4.01, *p* < .05), but then no further reliable improvement on the termination to follow-up comparison. There was a reliable reduction in depression (BDI-II) from assessment to termination (RCI = 4.62, *p* < .05), but not from termination to follow-up (RCI = .57, *p* ns.). The participant was severely depressed at assessment and remained moderately depressed at termination and at follow-up. There was a reliable reduction in psychological distress (BSI-GSI) from assessment to termination (RCI = 3.12, *p* < .05) and from the termination to the follow-up (RCI = 4.00, *p* <.05). The participant remained a ‘case’ on the BSI-GSI throughout contact however. There was a reliable and clinically significant reduction in interpersonal problems (IIP-32) from assessment to termination (RCI = 3.15, *p* < .05), but no further change from termination to follow-up (RCI = .58, *p* ns.). Across the four nomothetic outcome measures, there was no evidence of deterioration or harm and pattern of improved outcomes across a range of areas that was maintained over follow-up time.

**Discussion**

The purpose of the study was to evaluate the effectiveness of an integrative psychotherapy (CAT) for a patient meeting diagnostic criteria for DPD, as this form of evidence is slight. There have been previous examples of the use of single case evaluations of different therapies with DPD (see Rogina & Quilitch, 2006 for an example), but this is the first single case evaluation of an integrative psychotherapy and also the first evaluation of the effectiveness of a 24-session intervention with CAT with DPD. The study hypothesis was that the CAT intervention would lead to significant improvements in DPD symptomology and that these would be maintained over follow-up time. There was a significant effect of phase on the primary ideographic measure of reassurance seeking (indexing reduced emotional dependency; McClintock et al., 2017) and a reliable improvement in self-confidence on the primary nomothetic measure. On both these measures there was no evidence of deterioration over the follow-up period. The largest effect size on the ideographic measures was for the reduction in reassurance seeking. The intervention was not universally effective; it is worth recognising that there was no change on the IDI subscales of emotional reliance and assertion of autonomy.

It is an interesting feature of the shape of change in this study that a lot of the positive change that the client experienced occurred during the follow-up period. This would be seen as an example of the therapy being internalised (Salvini et al, 2012) and also the diligent endings work conducted meaning that the end of therapy was not experienced by the client as an abandonment (Ryle & Kellett, 2018). Also, the CAT follow-up model with PD is to offer four follow-up sessions (three one-month apart after the end of weekly therapy and one final session six-months after the end of weekly therapy). The focus of these follow-up sessions was to support the client in their ongoing efforts to individuate and to recognise the manner in which the participant might self-sabotage (Ryle & Kellett, 2018). It is possible that something external to the therapy resulted in the continued progress over the follow-up period. The use of the Change Interview(i.e. a semi-structured interview that assesses psychotherapy client’s perspectives as to any changes that have occurred (or not) during therapy and then identifies the main contributory factors; Network for Research on Experiential Psychotherapies, 2003) would have enabled an assessment of such factors.

Graphing of the ideographic results would suggest that the start of the treatment phase lead to continued improvement, but not in itself was not effective in causing such improvement, due to improvement trends being evident during baselines. As such, treatment could be said to have caused a facilitation effect of a process that was already underway. One of the assumptions of SCED is the generation of a stable baseline against which intervention (and withdrawal if used) can be assessed (Barlow & Hersen, 1984). SCED methods were originally based on animal research in labs in which it is possible to wait for a stable baseline. Whilst this maybe methodologically appropriate and useful, it is not ethical during psychotherapy research. Unstable baselines do limit the confidence with which the improvements that occurred during treatment and then follow-up can be assumed to be independent of another maturational change process. This also suggests the therapeutic impact of engaging in the assessment process over the three sessions of the baseline or possibly a mere measurement effect (Godin, 2011). Single case researchers suggest allowing the baseline to settle before commencing the treatment, in order to be able to draw more concrete conclusions (Baer et al., 1968). However, this is ethically inappropriate in routine clinical situations, in which the patient should be treated as soon as the assessment is completed (Kazdin, 1978).

On the primary nomothetic outcome measure, then there was evidence of a reliable reduction between assessment and end of treatment on the lack of self-confidence IDI sub-scale. Increasing self-confidence is seen as a crucial outcome in treating DPD (Versaevel, 2012). This would imply that the participant reduced their desire for constant help in decision-making, had improved social confidence and an improved ability to take the initiative (Hirschfield et al., 1977). The two processes underpinning the lack of self-confidence in dependency have been speculated to be (a) avoidance of autonomous behaviours due to a lack of ongoing confidence in the ability to judge what action should be taken and (b) a pronounced fear that specific others will not give their approval (McDonald-Scott, 1988). It is noteworthy that enhanced autonomy was a change method during the revision phase of the therapy and a frequent theme in the follow-up sessions. In terms of BDI-II outcomes, despite the reliable reduction in symptoms, the participant remained moderately depressed. Franche & Dobson (1992) recognised that dependency is a significant risk factor for depression. The client’s scores by termination and follow-up on the IIP-32 no longer reach female patient population norms (Barkham, Hardy & Startup, 1996), indicating clinically significant improvement in interpersonal problems. Whilst these nomothetic results generally index an effective intervention, it is worth noting that the problematic dependency was the central focus of treatment.

Theoretically, then CAT appears a therapy that is able to formulate the dynamics of dependency, as the reciprocal role concept enables the therapist to narratively and diagrammatically depict the *anticipated* reciprocation that is expected or craved from others, including the therapist. CAT theory therefore emphasises the interpersonal motives that underpin the relational styles of dependent patients. Centrally, the dependent behaviour of the patient invites a desired or anticipated reciprocation from the significant other and this fits closely with Horowitz’s (2006) conception of the relational dynamics of dependency. Therefore, when a dependent patient is submissive and indecisive, then the anticipated and invited reciprocation is one of agentic and decisive. When this occurs in the therapeutic relationship, then this would be seen as an ‘enactment of reciprocal roles’ in CAT, and one of the treatment competencies of CAT is analysis of such enactments (Bennett & Parry, 2004). The CCAT scores would suggest that this occurred. The CAT helped the participant have insight and express appropriate anger about the overprotective parenting style that had originally fostered the dependency (Head, Baker & Williamson, 1991).

As the present study was an SCED, the generalizability of the results is, of course, questionable due to the sample size. The A/B design is seen as a quasi-experimental single case design rather than true single case experimental design, due to the absence of a multiple baseline or use of a reversal design (Kazdin, 1978). All data was self-report which is a study weakness, as self-report outcomes are seen as less reliable (Nicklas, Dunbar & Wild, 2010) and subject to social desirability (Arnold & Feldman, 1981). There are examples of outcome research with obsessively morbidly jealous patients, in which outcomes are collected from partners (Kellett & Totterdell, 2011) and this current study would have benefitted from such methods to supplement the self-report. A major feature of DPD involves a wish to please people and going to extreme lengths to retain relationships (APA, 2013; Beck et al., 1990), so the self-report outcomes in this study may reflect such processes. The phenomenon of DPD patients transferring dependence onto their therapist (Beck et al., 1990) may be reflected in the trend showing a (non-significant) worsening trend on two ideographic measures during the intervention. This may be because the patient recognised that treatment was nearing completion, and in an attempt to keep the therapeutic relationship, ratings of clarity and depression became more variable. The recent development of a brief, six-item version of the IDI (McClintock et al., 2017) would enable future studies to use a sessional outcome monitoring method to supplement any ideographic measurements. The study would have benefited from adding the personality structure questionnaire (PSQ; Pollock, Broadbent, Clarke, Dorrian, & Ryle, 2001) into the battery of nomothetic measures, due to the identity issues stated by the participant, as the PSQ measure identity disturbance as is consistent with the MSSM of CAT.

In conclusion, the CAT intervention was found to lead to improvement in DPD symptoms, as measured by psychometric and ideographic outcomes. Although the CAT intervention led to continued improvement, full recovery was not evident. It could not be concluded that the CAT intervention was effective in itself, due to the unstable baselines undermining confidence in the changes observed during treatment and follow-up. However, as the first SCED for treating DPD, the present study provides an example that such research is possible, can be conducted in routine clinical practice and is a solid foundation for future research. Brief integrative therapies appear have much to offer in the treated of DPD, due to the emphasis on ending in particular. Clearly, there is a tension arc between healthy independency and healthy dependency and psychological therapies should be aiming to strike a balance between these factors. The next research step would appear to be the use of a small case series with a randomized multiple baseline, use of the PSQ, lengthy follow-up, use of the change interview and also collection of outcome data from significant others to assess whether changes in dependent behaviours are experienced by significant others.

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|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Ideographic measure  | Baseline phase mean *(SD)* | Treatment phase mean *(SD)* | Follow-up phase mean *(SD)* | Baseline to intervention t-test  | Baseline to follow-up t-test | Treatment to follow-up t-test  |
| Avoidance of decisions | 7.82 *(.82)* | 7.14 *(.84)* | 6.35 *(.80)* | .35  | .79\*  | .45\*  |
| Reassurance seeking | 8.04 *(.88)* | 7.17 *(.89)* | 6.59 *(.82)* | .42\*\*  | .73\*  | .31\*  |
| Emotionally numbness | 7.81 *(1.31)* | 6.93 *(1.16)* | 6.45 *(.92)* | .52\*\*  | .84\*  | .32\*  |
| Cognitive clarity | 2.25 *(.89)* | 2.83 *(.86)* | 3.47 *(.95)* | -.29  | -.65\*  | -.37\*  |
| Depression | 8.14 *(.93)* | 7.60 *(.93)* | 7.04 *(.78)* | .31  | .66\*  | .36\*  |
| Anxiety | 8.00 *(1.02)* | 7.53 *(.90)* | 7.27 *(.75)* | .32  | .50\*  | .18  |

*Table 1;* ideographic measures by phase of study

*Note.* \*indicates a significant difference of *p* ≤ .001. \*\*indicates a significant difference of *p* < .05. Effect size = Cohen’s *d*.

*Table 2;* nomothetic outcomes at assessment, end of treatment and at follow-up.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Measure | Assessment  | Termination of treatment | Follow-up | Assessment to termination RCI | Termination to follow-up RCI |
| BDI-II | 42 (severe) | 26 (moderate) | 24(moderate) | 4.62\* | .57 |
| BSI-GSI | 3.06 | 2.30 | 1.02 | 3.12\* | 4.00\* |
| IIP-32 | 1.60 | **1.23** | **1.00** | 3.15\* | .58 |
| IDI  | 111 | 59 | 56 | - | - |
| Emotional reliance (IDI)  | 30 | 20 | 18 | .89 | .17 |
| Lack of self-confidence (IDI)  | 43 | 19 | 19 | 4.01\* | .00 |
| Assertion of autonomy (IDI) | 38 | 20 | 19 | 1.70 | .17 |

*Note.* \* indicates an RCI value significant at the .05 level and **bold** indicates positive clinical change.